72445

ABANDONED/UNCONTROLLED HAZARDOUS WASTE SITE INVESTIGATIONS

PRELIMINARY ASSESSMENT REPORT

'3012' Grant Summary

Dugan & Helterbrand Company, Inc.
190 George Street
Marshfield, Missouri 65706

I. INVESTIGATOR: Charles L. Kroeger
Environmental Specialist
Waste Management Unit
Springfield Regional Office (SRO)
Missouri Department of Natural Resources

II. DATE INVESTIGATION INITIATED: July 15, 1985

DATE INVESTIGATION COMPLETED: September 19, 1985

III. BACKGROUND OF THE INVESTIGATION:

The Dugan and Helterbrand Company treats processed and raw photographic film and lithographic material for recovery of silver. The spent film chips had been going to the landfill without official DNR approval. Then in 1983 the company submitted application for and received special waste disposal approval to take the chips to the landfill.

In February 1985, sampling was performed at the Webster County Landfill in response to complaints by area residents. Samples were collected from streams of leachate and from a pile of chips recently taken there from Dugan & Helterbrand. The lab report indicated cyanide as high as 1.07 ppm in the leachate and 2,136 ppm in the chips.

Dugan & Helterbrand was immediately contacted and advised that they could no longer take chips to the landfill if the cyanide exceeded 250 ppm. A change in the hyperchlorite rinse of the plant reduced the cyanide to within the allowable range.

Dugan & Helterbrand is now in the process at converting to an enzyme process which would reduce the use of cyanide by 90%.

IV. IDENTITY OF PERSONS INTERVIEWED FOR THE REPORT:

	Association
Mr. Joe Helterbrand Dugan & Helterbrand Co., Inc. 190 George Street Marshfield, MO 65706 (417) 468-3900	President
Mr. Bill Ralston MO Department of Natural Resources 117 E. Dunklin Jefferson City, MO 65102 (314) 751-3241	Environmental Investigator

V. BRIEF SUMMARY OF INFORMATION OBTAINED:

The company processed and disposed of an estimated 7,200 tons of film chips from 1979 to 1985. These film chips were treated with hyperchlorite solution prior to being taken to the Webster County Landfill; however the effectiveness of cyanide removal by the hyperchlorite apparently varied greatly resulting in some waste having total cyanide values of over 2,100 ppm. DNR has placed a limit of 250 ppm on waste to be disposed of in a sanitary landfill.

Sampling of private wells in the landfill area has not disclosed any adverse affects on the groundwater that can be attributed to the landfill or the Dugan & Helterbrand Company.

A spill at the plant in 1983 resulted in the death of several head of cattle owned by Mr. Helterbrand. The cattle reportedly are buried on site. An underground tank on the plant property was used to store spent cyanide solution. It is now empty and no longer used.

VI. DETAILED ACCOUNT OF THE INVESTIGATION:

During the investigation DNR officials spoke with Mr. Helterbrand concerning his operation and regarding the spill which occurred in 1983. Environmental Investigator Bill Ralston spoke with unidentified persons who were associated with the company or had knowledge of past events at the company. The facts obtained were presented to Mr. Helterbrand for his clarification.

Mr. Helterbrand related the process used to recover the silver from the film and explained that he had obtained the services of a consultant on destruction of the cyanide in the processed chips. DNR files confirmed this and contain a copy of the treatment process. Mr. Helterbrand indicated that he tested the processed chips with a colorimetric test to make certain the cyanide levels were low. The test apparently proved ineffective.

Mr. Helterbrand indicated that one of the process tanks leaked 50-100 gallons of process water that had the silver recovered from it but had not yet been treated to remove the cyanide. This water ran out of the building and pooled along the fence where cattle had access to it. Several head of cattle drank the water and died as a result of it. The cattle were buried on site, the pooled water was sucked up and returned to the tank and the spill area was treated with a sodium hypochlorite solution. The spill occurred from the west end of the east processing building. Dikes have since been constructed to prevent spillage from escaping out of the buildings.

Under directive by the DNR, Dugan & Helterbrand and the Department of Natural Resources tested each batch of processed chips prior to disposal at the landfill. Samples we collected and split primarily by DNR personnel and the chips were stored on site until both sets of results were reviewed and approval for disposal given. A summary of the test results is attached.

The plant is located at 190 George Street in Marshfield, Missouri. Latitude is 37° 19' 58", Longitude 092° 55' 20". The legal description is SE¼, SE¼, NW¼, Section 9, T30, R18. From the I-44 interchange at Marshfield travel south on Highway 38 for 0.7 mile to Washington Street (Old Highway 66). Travel 0.2 mile to George Street and travel south for 0.2 mile. The plant sets along the north side railroad tracks to the east of George Street.

The current property owner is Dugan and Helterbrand Co, Incorporated and the current operator is Mr. Joe Helterbrand, 116 George Street, Marshfield, Missouri 65706. Mr. Helterbrand also operated the business at the time of the burial of the cattle, spill at the tank and disposal in the Webster County Landfill.

The business consists of a series of metal buildings with concrete slab between the buildings. There is also a smelter on site for the silver.

The plant is set at the edge of an industrial area with residential and pastureland on two other sides. There is a shopping center within 1/4 mile of the site but little development other than industry in the drainage area below the plant.

The processed chips are temporarily stored on site in dumpsters on concrete pads until they can be hauled to the landfill. The tank in which spent cyanide solution was stored is now empty and no other disposal takes place on site. The cattle which died in 1983 are buried on the adjacent property.

The amount of processed material containing cyanide that is stored on site varies greatly. At times there may be as much as five dumpsters of chips on site but generally there will be none. The amount of cyanide contaminated soil and buried material is estimated to be 2 - 3 cubic yards.

According to the Division of Health's Health Assessment cyanides have been found to cause weakness, headaches, confusion, nausea, vomiting, eye and skin irritation and slow gasping respiration. Cyanide gas in sufficient concentrations can be lethal.

There are no known environmentally sensitive areas or water supplies in the immediate area. Any surafce water flow from the site would flow south toward Lacey Creek however the plant site is relatively flat and there was apparently no runoff from any spills.

There are presently no known serious health problems attributed to the site. There were however, six head of cattle that died as a result of cyanide solution spill.

VII. CONCLUSIONS AND RECOMMENDATIONS:

It appears that with the change of processes and better control on the cyanide reduction process there should be no future hazardous wastes generated at the facility.

The two areas at which cyanide spills have occurred have reportedly been treated with sodium hypochlorite solutions to reduce the cyanide. It may be advisable however to sample the soils at the two spill areas and to sample the underground storage tank that is no longer in use.

SUBMITTED BY:

Charles L. Kroeger
Environmental Specialist

Sept. 23, 1985
Date

VIII. ATTACHMENTS:

1. EPA Form 2070-12
2. Topographical map
3. County map
4. Plant layout
5. Results on Analysis of chips

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
29	

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Dugan & Helterbrand Co., Inc.	190 George Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Marshfield	MO	65706	Webster	225	7

09 COORDINATES LATITUDE	LONGITUDE
37 19 58	92 55 20

10 DIRECTIONS TO SITE (Starting from nearest public road)

.2 mile southwest of Highway 38 on Old Highway 66 then .2 mile south on George Street in Marshfield, Missouri. Site is east of George Street.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Dugan & Helterbrand Co., Inc.	190 George Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
Marshfield	MO	65706	(417) 468-3900	

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Mr. Joe Helterbrand (Pres.)	

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	
Marshfield	MO	65706	( )	

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☐ YES DATE ___/___/___ (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION	
☐ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	____ BEGINNING YEAR ____ ENDING YEAR	☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Joe Rowe	Hazardous Waste Management DNR	(314) 751-3241

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Charles L. Kroeger	DNR	SRO	(417) 883-4033	___/___/___ (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART A - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
29	

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE

CUBIC YARDS: _____

NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Sodium Cyanide				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE: 29 | 02 SITE NUMBER:

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: 29 | 02 SITE NUMBER:

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

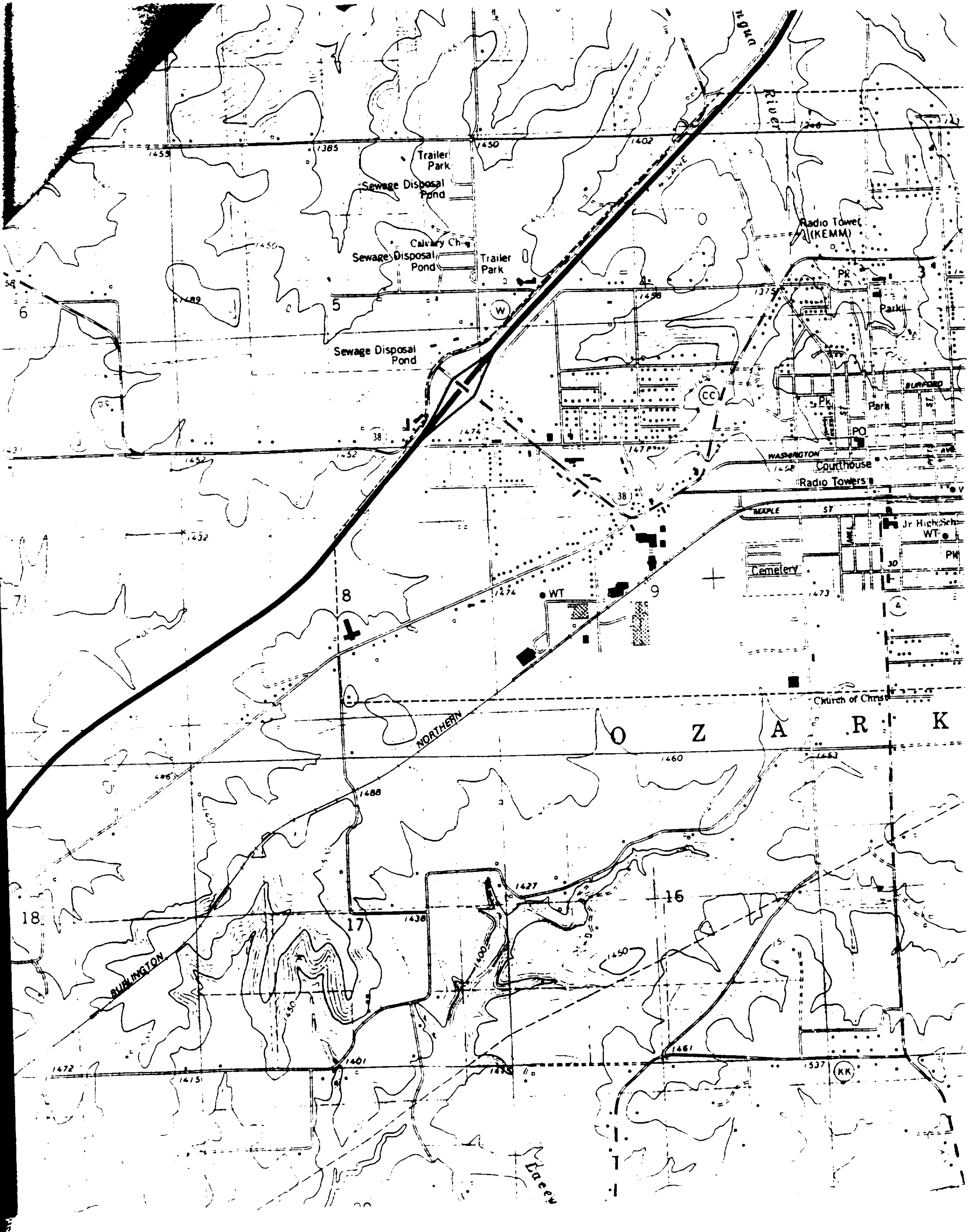
01 ☐ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ F. CONTAMINATION OF SOIL | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) | 04 NARRATIVE DESCRIPTION

01 ☐ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION



Trailer Park
Sewage Disposal Pond
Calvary Ch
Sewage Disposal Pond
Trailer Park
Sewage Disposal Pond
Radio Tower (KEMM)
River
Pk
Park
Pk
Park
PO
WASHINGTON AVE
Courthouse
Radio Towers
MAPLE ST
BURFORD
Jr High Sch
WT
Cemetery
WT
Church of Christ
O Z A R K
NORTHERN
BURLINGTON
1455
1385
1450
1402
1489
1452
1474
1478
1458
1375
1432
1473
1460
1453
1488
1427
1438
1461
1537
1472
1415
1401
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3
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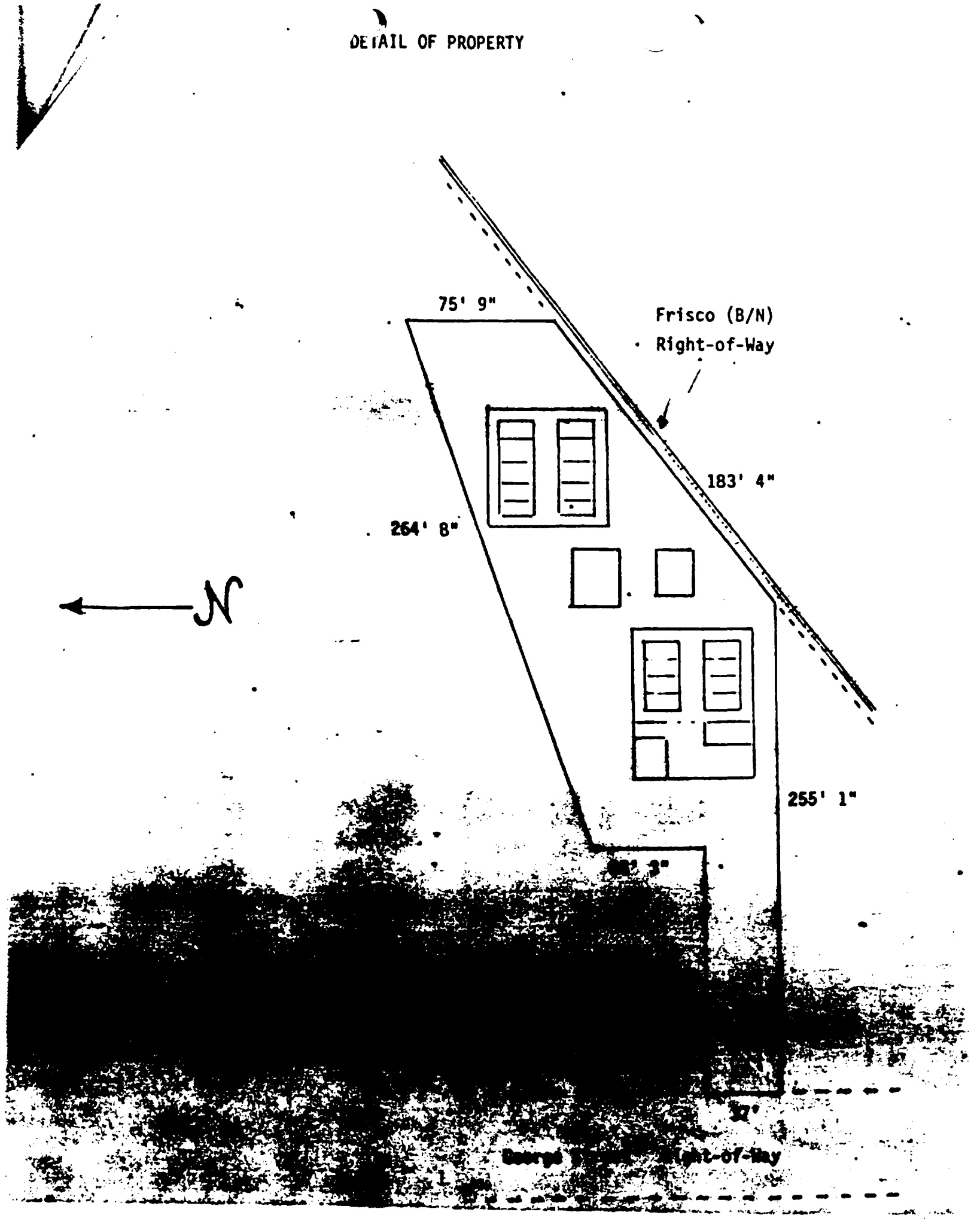
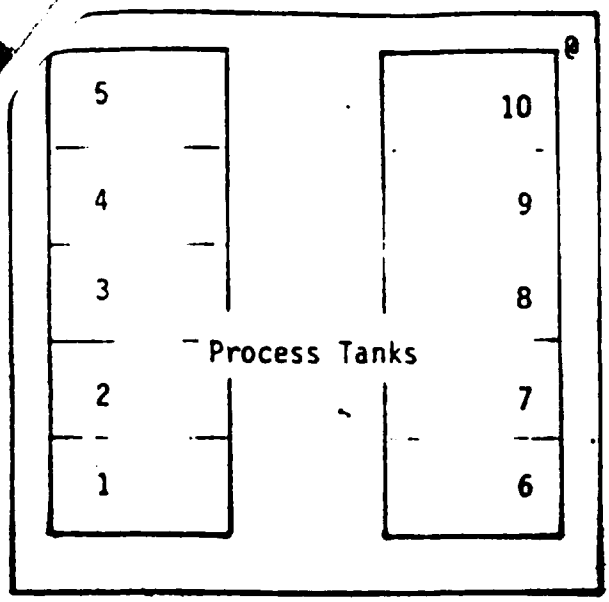
9
18
17
16

DETAIL OF PROPERTY



DETAIL OF BUILDINGS



East Process Building

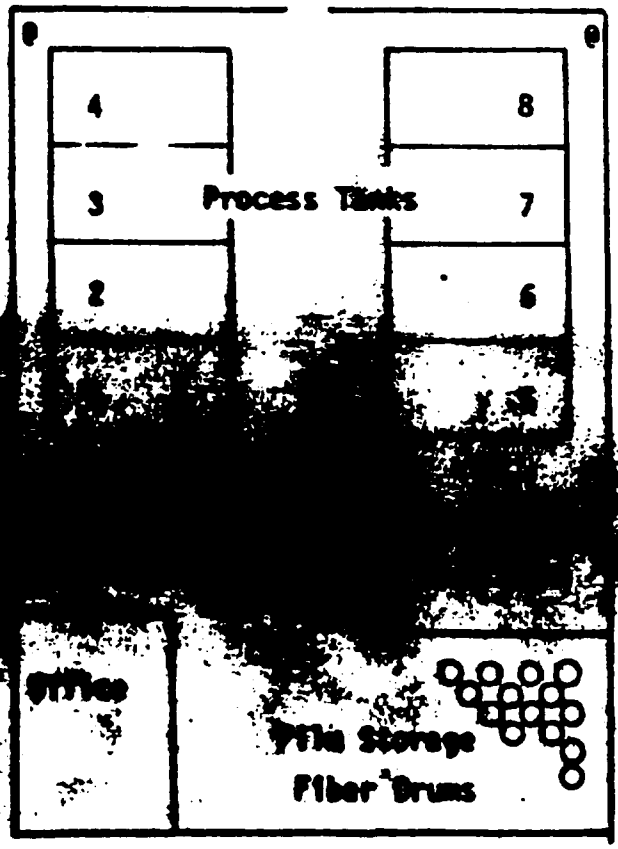
@ Location of Sump Pumps
(2 Each Process Building)
Discharge to Empty Tank(s)

Spill Area

Chemical Storage Building

Smelting

Underground Storage Tank



West Process Building and Office

Locations and Dimensions of Buildings Approximate

JOHN ASHCROFT
Governor

FREDERICK A. BRUNNER
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
Springfield Regional Office
1155 East Cherokee Street
Springfield, MO 65807
417-883-4033

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks and
Historic Preservation

Sample #	Date	Description	CaSi	(Actual)	EA,I
85-3191	5-13-85	processed chips	51.5		55.5
85-3192	5-13-85	control #1	0.583	0.561	.346
85-3164	5-28-85	processed chips	193		208
85-3099	6-05-85	processed chips	160		152
85-3181	5-07-85	control #2	0.175	.185	.197
85-3187	6-10-85	processed chips	53		63.5
85-3204	6-18-85	processed chips	192		86.5
85-3205	5-07-85	control #3	0.414	.758	.561
85-3209	6-27-85	processed chips	128		131

12446

JOHN ASHCROFT
Governor

FREDERICK A. BRUNNER
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
Springfield Regional Office
155 East Cherokee Street
Springfield, MO 65807
417-883-4033

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks and
Historic Preservation

Webster County

September 26, 1985

Mr. Joe Helterbrand
Dugan & Helterbrand Company, Inc.
190 George Street
Marshfield, MO 65706

Dear Mr. Helterbrand:

Please find enclosed the Hazardous Waste Compliance Inspection Report for the Dugan & Helterbrand Company at Marshfield in Webster County, Missouri. The report I believe is self explanatory.

The report indicates that Dugan & Helterbrand is in compliance with the hazardous waste law and regulations in that no hazardous wastes are being generated.

If you have any questions regarding the report, please contact Charles Kroeger of this office.

Sincerely,

SPRINGFIELD REGIONAL OFFICE

John R. Nixon, P.E.
Administrator

JRN/CLK/cg

Enclosure

cc: Webster County Court
bcc: Ms. Sandra Carroll, Waste Management Program

HAZARDOUS WASTE COMPLIANCE INSPECTION REPORT

DUGAN & HELTERBRAND COMPANY, INCORPORATED
190 George Street
Marshfield, Missouri 65706
(417) 468-3900
E.P.A. ID#: None
Mo. ID#: None
Contact: Mr. Joe Helterbrand, President

INTRODUCTION:

On September 17, 1985, Charles Kroeger, Missouri Department of Natural Resources, Springfield Regional Office, conducted a hazardous waste compliance inspection at the Dugan & Helterbrand Company at Marshfield in Webster County, Missouri.

Dugan & Helterbrand recovers silver from waste photographic and x-ray film. The film is hammer milled to nickle size pieces and placed in a rotating drum that immerses it in an enzyme solution. The enzyme solution removes the gel from the chips, thus, removing the silver. The liquid is then treated with a flocculant and the sludge containing the silver is shipped for smelting. Wastewater from the system discharges into the Marshfield municipal sewerage system and is regulated by the pretreatment ordinance.

For unexposed film chips and lithographic chips, Dugan and Helterbrand uses the cyanide extraction method. This is the method they used prior to installation of the enzyme process.

In the cyanide method, chips are placed in a tank and sodium cyanide is added to it. The reaction forms a silver cyanide complex that is pumped through a plating tank where the silver is extracted. The cyanide solution is then reused. The chips, after being processed with sodium cyanide, are rinsed with water which is then used as make up water for following batches. Sodium hyperchlorite is added to the processed chips to reduce remaining cyanide to cyanate which breaks down to form carbon dioxide and nitrogen. The waste chips are taken to the Webster County Sanitary Landfill.

UNSATISFACTORY FEATURES:

NONE

COMMENTS:

The inspection disclosed that Dugan & Helterbrand Company, Incorporated is not a generator of hazardous waste in regulatable quantities. There has been a problem in their testing procedure and neutralization process in the past which allowed large quantities of chips high in cyanide to be disposed of in the landfill. However, the change in processes has apparently corrected this problem. At present, 90-95% of the film is processed by the enzyme process. The cyanide treatment is used only for lithographic film and unexposed film.

RECOMMENDATIONS:

NONE

APPROVED:

John R. Nixon, P.E.
Administrator

SUBMITTED BY:

Charles L. Kroeger
Environmental Specialist

HAZARDOUS WASTE GENERATOR CHECKLIST

Dugan & H[illegible]brand Company, Inc — Date: 9-17-85

190 George Street

Marshfield, Mo 65706 — Missouri I.D. # —

Representative: Mr Joe Hiltebrand — EPA I.D. # —

Title: President — Phone Number 417 468-3960

Is this facility a TSD? N — Transporter? N, # ____

Provide a brief description of the manufacturing process.

[illegible] x-ray & photography are [illegible] milled to [illegible] placed in a drum that rotates through an enzyme solution. The solution removes the gel from the plastic thus removing the silver. The liquid is then treated with a flocculant and the flock, containing the silver, is sold to a silver recovery facility. The waste water is governed by pretreatment and discharges to the Marshfield municipal sewage system.

List the hazardous wastes produced:

	Waste	Amount/month	Kilogram/month	I.D. #	Disposition
1.	No Haz Waste				
2.	Generated				
3.					
4.					
5.					
6.					
	Total				

Subtract amount going to Resource Recovery or sewer ____

Amount subject to generator fee 0 (Fee is applicable if this value is over 10 kkg annually. Fee based on generation from July 1 through June 30)

Is generator fee applicable to this facility? Yes ____ No X (If yes, is it being paid? Yes ____ No ____)

Is the head tax applicable to this facility? Yes ____ No X (If yes, is it being paid? Yes ____ No ____) (Quarterly ____ Annually ____)

Is the land disposal fee applicable to this facility? Yes ____ No X (If yes, is it being paid? Yes ____ No ____)

If the total amount of hazardous waste generated is less than 100 kg/month, is over 100 kg ever accumulated? Yes ____ No ____

If the total amount of hazardous waste generated is less than 1000 kg/month, is over 1000 kg ever accumulated? Yes ____ No ____

If 1000 kg is never accumulated, is hazardous waste disposed of within 1 year? Yes ____ No ____

Has the generator determined if waste is hazardous? Yes ____ No X it is not

A. MANIFESTS 10 CSR 25-5.010(4)

1. Generator's Missouri and EPA I.D. Numbers
2. Serially increasing shipment number
3. No. waste I.D. # correct
4. Generator's name, address, phone number, EPA I.D. number
5. All transporters' names, addresses, phone numbers, and EPA I.D. numbers
6. Hazardous waste management facility name, address, phone number, and EPA I.D. number
7. Proper DOT shipping name and hazard class
8. Quantity, container type, and number of units being shipped
9. Emergency instructions and special handling procedures
10. Proper certification
11. Manifest properly signed and dated

NA

13. Manifests returned within 30 days
14. If not, exception generator report submitted within 45 days
15. Completed manifests submitted to Department quarterly

B. CONTAINERIZATION AND LABELING 10 CSR 25-5.010(6)

16. Waste stored in proper DOT containers
17. Containers labeled "Hazardous Waste" and labeled per proper DOT requirements during storage

C. STORAGE STANDARDS 10 CSR 25-7.050

18. Facility inspected and maintained
19. Ignitable and reactive wastes properly handled
20. Date of accumulation marked
21. Storage less than 90 days (if applicable)
22. Waste oil properly handled

NA

...n every month of less than 1000 kg, ...roceed
...on in any month of over 1000 kg, c... ...ectio

...AINING 10 CSR 25-7.050 cross-referenced to 10 CSR 25-7.011(3)(F)

... classroom or on-the-job training ☐

...cle, description, and name of person filling ...tion ☐

...ritten record of the type and amount of training given ☐

... Documentation confirming that training has been given ☐

... PREPAREDNESS AND PREVENTION 10 CSR 25-7.050(2)(A) cross-referenced to 10 CSR 25-7.011(4)

7. Internal communication or alarm system ☐
8. Device in the hazardous waste operation area capable of summoning emergency assistance ☐
9. Fire control, spill control, and decontamination equipment available ☐
30. Adequate water supply for fire control equipment ☐
31. Adequate and proper safety equipment available ☐
32. Adequate aisle space ☐
33. Arrangements with local emergency agencies ☐

F. CONTINGENCY PLAN AND EMERGENCY PROCEDURES 10 CSR 25-7.050(2)(A) cross-referenced to 10 CSR 25-7.011(5)

34. Contingency Plan ☐
35. Detailed description of procedures that personnel must implement in response to fires, explosions, or release of hazardous waste ☐
36. Describe formal arrangements with emergency agencies ☐
37. Names, addresses, and phone numbers (home & office) of emergency coordinators ☐
38. Emergency equipment including its description and location ☐
39. Evacuation plan if applicable ☐

Comment: _____

G. CONTAINER STORAGE 10 CSR 25-7.050(3)

40. Containers in good condition ☐
41. Containers storing incompatible wastes or products are separated or protected from each other ☐
42. Containers kept closed in storage ☐
43. Containers stored within a waste confinement structure (if applicable) that meets the criteria of 10 CSR 25-7.050(3)(F) ☐
44. Containers of ignitable or reactive waste are stored at least 50 feet from the property line ☐

Comment: _____

HAZARDOUS WA... ...RAGE TANKS

Waste Contained	Volume of Tank

H. STORAGE TANKS 10 CSR 25-7.050(4)

45. Tanks in good condition ☐
46. Procedure for inspecting tanks ☐
47. Above ground tanks - adequate spill confinement structures ☐
48. Underground tanks that cannot be entered have adequate leak detection systems ☐
49. Leak detection procedure and schedule developed and used ☐
50. Open tanks have ____ ft. freeboard ☐
51. Incompatible wastes in tanks safely and properly stored ☐
52. Volatiles are not placed in open tanks ☐
53. Ignitable or reactive wastes in tanks safely and properly stored ☐
54. Ignitable or reactive wastes in covered tanks stored in accordance with NFPA's buffer zone requirements ☐
55. Controls to prevent overfilling ☐
56. Daily inspection of overfilling control equipment ☐
57. Daily inspection of freeboard in uncovered tanks ☐

NA

Comments: _____

Please mark boxes as shown

☑ In compliance

■ In violation

Inspector's Signature Charles LaKroeger

Title Environmental Specialist

Office SRO

DFH

MISSOURI DEPARTMENT OF NATURAL RESOURCES

Division of Environmental Quality

Field Sheet and Chain of Custody Record

Collector's Name and Affiliation (Please Print)

Description of Shipment No. of Samples 1

No. of Containers ____ How Sealed TAPED

Sample No.	Sample Description	Collected Date	Collected Time	Analyses Requested	Field Analyses	Sample Category
85-3216	[illegible]	7-17-85	[illegible]	CYANIDE		5

Chain of Custody Record

Relinquished By	Received By	Date	Time	If Shipped Carrier	Delivered Date	Delivered Time	Picked Up Date	Picked Up Time
☐ Sealed ☑ Shipped	☐ Sealed			RICHOUND	7-17-85	12[illegible]		
Relinquished By ☐ Sealed ☐ Shipped	Received By ☐ Sealed			Carrier				
Relinquished By ☐ Sealed ☐ Shipped	Received By ☐ Sealed			Carrier				
Relinquished By ☐ Sealed ☐ Shipped	Received By ☐ Sealed			Carrier				